

Appendix B: Provincial Case Definitions for Reportable Diseases

Disease: Psittacosis/Ornithosis

Psittacosis/Ornithosis

1.0 Provincial Reporting

Confirmed and probable cases of disease

2.0 Type of Surveillance

Case-by-case

3.0 Case Classification

3.1 Confirmed Case

Laboratory confirmation of infection with clinically compatible signs and symptoms:

- A significant (i.e., fourfold or greater) rise in antibodies to *Chlamydophila* (formerly *Chlamydia*) *psittaci*
- OR**
- Isolation of the infectious agent from a clinical specimen (e.g., blood, sputum)

3.2 Probable Case

Clinically compatible signs and symptoms in a person with:

- An epidemiologic link to a known source (i.e., human, animal or environment)
- OR**
- Supportive serology (e.g., *C. psittaci* titre of ≥ 32) with one or more serum specimens obtained after onset of symptoms
- OR**
- Positive for nucleic acid amplification testing (NAT) for *C. psittaci* specific targets

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

Any of the following will constitute a confirmed case of Psittacosis/Ornithosis:

- Isolation of infectious agent from clinical specimen [This should be done in a Containment level 3 facility, being a risk level 3 agent in Canada.]
- A significant (i.e., fourfold or greater) rise in antibody response towards *C. psittaci*

4.2 Approved/Validated Tests

- Microimmunofluorescence (MIF) assay for serologic response to *C. psittaci*, with positive and negative control sera used with each run and other quality indices as described by Dowell et al.
- NAT for *C. psittaci* specific targets (e.g., 16SrRNA and 23SrRNA gene targets)

4.3 Indications and Limitations

- Chronic *C. psittaci* infection has been found to be associated with ocular adnexal mucosa-associated lymphoid tissue[MALT]-type lymphoma in some instances
- The Focus Diagnostics commercial kit for MIF testing (Cypress Ca) contains antigens for *C. pneumoniae*, *C. psittaci* and *C. trachomatis*. The National Microbiology Laboratory (NML) uses a method as outlined by Wang. Interpretation was adapted for MIF platform as described by Dowell et al. However, cross reactivity among closely related agents using MIF test

procedures have been observed here; the sensitivity and specificity of the MIF for diagnosis of psittacosis specifically is not well evaluated and so interpretation of titre must be linked with symptoms and / or linkage with definitive cases (see also recent publication by Verminnen et al.)

- In-house NAT testing should be done using standard controls

5.0 Clinical Evidence

Mild forms may be mistaken for common respiratory illnesses. The disease can have a sudden onset with fever, chills, sweating, myalgia, loss of appetite and headaches. Human disease can be severe, especially in untreated elderly persons.

6.0 ICD Code(s)

ICD 10 Code A70

7.0 Comments

N/A

8.0 References

- Acha PN, Szyfres B. Zoonoses and communicable diseases common to man and animals. 3rd ed. Volume II. Chlamydioses, Rickettsioses, and Viroses. Washington DC: Pan American Health Organization; 2003.
- Dowell SF, Peeling RW, Boman J, Carlone GM, Fields BS, Guarner J, et al. Standardizing *Chlamydia pneumoniae* assays: recommendations from the Centers for Disease Control and Prevention(USA) and the Laboratory Centre for Disease Control (Canada) . Clin Infect Dis. 2001;33(4):492-503.
- National Notifiable Diseases Surveillance System. Case Definitions. [Internet]. Psittacosis; 1996. Atlanta, GA: Centers for Disease Control and Prevention (CDC); 2008. [cited 2009 Feb 12]. Available from <http://www.cdc.gov/ncphi/diss/nndss/casedef/psittacosiscurrent.htm>.
- Everett KD, Bush RM, Andersen AA. Emended description of the order Chlamydiales, proposal of Parachlamydiaceae fam. nov. and Simkaniaceae fam. nov., each containing one monotypic genus, revised taxonomy of the family Chlamydiaceae, including a new genus and five new species, and standards for the identification of organisms. Int J Syst Bacteriol. 1999;49 Pt 2:415-40.
- Ferreri AJ, Dolcetti R, Du MQ, Doglioni C, Resti AG, Politi LS et al. Ocular adnexal MALT lymphoma: an intriguing model for antigen-driven lymphomagenesis and microbial-targeted therapy. Ann Oncol. 2008;19(5):835-46.
- Heymann D, editor. Control of communicable diseases manual. 18th ed. Washington: American Public Health Association; 2004.
- Ministry of Health and Long-Term Care, Public Health Division. iPHIS manual. Toronto, ON: Queen's Printer for Ontario; 2005.
- Verminnen K, Duquenne B, De Keukeleire D, Duim B, Pannekoek Y, Braeckman L, Vanrompay D. Evaluation of a *Chlamydophila psittaci* infection diagnostic platform for zoonotic risk assessment. J Clin Microbiol. 2008;46(1):281-5.
- Wang S. The microimmunofluorescence test for *Chlamydia pneumoniae* infection: technique and interpretation. J Infect Dis. 2000;181(Suppl 3):S421-5.

Date of Last Revision: November 2008

